

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

Claims 1-10 (Canceled)

11. (Currently Amended) A radio reception apparatus, comprising:

a correlation calculator that performs a correlation calculation, having a calculation length, on a reception signal using a known signal;

a delay detector that performs a delay detection using a signal obtained from the correlation calculation;

a detector that detects a synchronization timing based on the delay detection;

a reception situation estimator that estimates at least one of a signal to noise ratio, a reception power and a ratio of energy per bit to spectral noise density (E_b/N_o) from the reception signal on which the correlation calculation is performed; and

a calculation length controller that controls the calculation length according to the at least one of the signal to noise ratio, the reception power and the E_b/N_o estimated by the reception situation estimator.

12 (Previously Presented) The radio reception apparatus according to claim 11, wherein the calculation length controller increases the calculation length when the at least one of the signal to noise ratio, the reception power and the E_b/N_o is bad, and decreases the calculation length when the at least one of the signal to noise ratio, the reception power and the E_b/N_o is good.

Claims 13-18 (Canceled).

19 (Currently Amended) A synchronization timing detection method, comprising:
performing a correlation calculation, having a calculation length, on a reception
signal using a known signal;

detecting a delay using a signal obtained as a result of the correlation calculation;

detecting a synchronization timing from the detected delay;

estimating at least one of a signal to noise ratio, a reception power and a ratio of
energy per bit to spectral noise density (E_b/N_0) from the reception signal on which the
correlation calculation is performed; and

controlling the calculation length according to the estimated at least one of the signal
to noise ratio, the reception power and the E_b/N_0 .

Claims 20-21 (Canceled).

22 (Previously Presented) The synchronization timing detection method according
to claim 19, wherein controlling the calculation length comprises increasing the calculation
length when the at least one of the signal to noise ratio, the reception power and the E_b/N_0
is bad and decreasing the calculation length when the at least one of the signal to noise
ratio, the reception power and the E_b/N_0 is good.

Claim 23 (Canceled).

24. (New) A radio reception apparatus comprising:

a correlation calculator that calculates a correlation having a calculation length on a
reception signal using a known signal;

a delay detector that detects a delay using a signal obtained from the calculated
correlation;

a detector that detects a synchronization timing based on the detected delay;

a reception situation estimator that estimates an E_b/N_0 based upon the reception signal; and

a calculation length controller that controls the calculation length according to the E_b/N_0 estimated by the reception situation estimator.

25. (New) A synchronization timing detection method comprising:

calculating a correlation having a calculation length on a reception signal using a known signal;

detecting a delay using a signal based upon a result of the calculated correlation;

detecting a synchronization timing from the detected delay;

estimating E_b/N_0 based on the reception signal; and

controlling the calculation length according to the estimated E_b/N_0 .